"Prof. Lodge was appointed to Liverpool University College in 1881, and since that time he had been closely associated with the work of the institution and done much to advance its reputation. Those who had come under the guidance and instruction of Prof. Lodge testified uniformly to his urbanity, courtesy, and kindness, and to the clearness and completeness of the instruction which he afforded them, but, apart from that, the original experimental work of Prof. Lodge entitled him to the greatest distinction. Their guest was a many-sided man, but the irreproachable certificate of his excellency as a man of science he received when he was awarded the Rumford Medal by the Royal Society. As to Prof. Lodge's attachment to Liverpool, it was so far back as 1881 that they were fortunate enough to secure association with him, and, notwithstanding temptations—some they knew of, and others of which they did not know—he had remained faithful to Liverpool. He thought he voiced the feelings of his fellow-citizens when he expressed the hope that Prof. Lodge would long continue his work in their midst. University College was an institution of which, with every reason, they were most proud, and he believed that in addition to the instruction which was there imparted, the taste of the community was directly raised, and the relations of the community to thought were very considerably ennobled by the existence of the college in their midst. The honour done to Prof. Lodge by awarding him the Rumford Medal was emphasised by the presence that night of some of the foremost men of science—Sir William Crookes, Prof. Fitzgerald, Prof. Myers, and others. If it required any further emphasis, it would have been afforded by the letters which he had received from some of the most prominent men of the time, in which they all expressed their deep regret at not being able to be present to do honour to their distinguished guest."

The Lord Mayor in conclusion alluded to the necessity for the erection and endowment of a physical laboratory at University College, and expressed the hope that before long one worthy of the institution would be provided, in which Prof. Lodge could carry on his important scientific work.

Prof. Lodge said he could not adequately express his sense of gratitude to the Lord Mayor for his speech—a speech of transparent sincerity—whether he deserved it or not. The chief magistrate had spoken about the endowment of a physical laboratory. The man or men who endowed such a laboratory in Liverpool would be doing a tremendous piece of work for the advancement of science. They of University College felt greatly indebted to the Lord Mayor for that magnificent reception and entertainment, and they rejoiced in the links that were every year drawing closer the city and University College. The contact could not be too close. He desired to take that opportunity of expressing his deep sense of the extreme kindness which had been shown to him during the time he had been in Liverpool. A few of his friends had gone, and amongst others, George Holt. No one helped him more directly in his scientific work than George Holt. The requirements of a man of science were not only friendly, but, unfortunately, they were also material, and it was a great thing that citizens of Liverpool and other places helped men of science to do their work. That was what George Holt and others had done, and what he believed others would do. The gathering that night was a remarkable proof of the amount of good feeling and appreciation shown by scientific men for the magnificent act of the Lord Mayor in doing honour to science, for the honour was really done to the Rumford Medal of the Royal Society. The chief magistrate of Liverpool recognised in the Royal Society the fountain of all purely scientific honour in this country, and he also recognised the biennial award of the Rumford Medal as an event of national—nay, even sometimes of international importance—because it was often given to foreigners, and in this way promoted friendly feeling among the workers in science in different parts of the world. It was undoubtedly a great honour to receive the Rumford Medal, and he was astonished when he got the intimation that by some concatenation of circumstances it had been awarded to him. After a reference to the splendid work done in connection with University College by Dr. Rendal, the former principal, Prof. Lodge concluded by saying that they in this peaceful and prosperous time had inherited the fruits of the labours of thousands who had gone before, and as the Lord Mayor had reminded them, they owed a great deal to the splendid era of peace through which they had lived, for it had given them an insight into the processes of nature more deeply than ever it was possible before. Science was yet in its infancy, human civilisation was but emerging from its cradle, the smoke and the noise and the squalor outside were evidences that we had not proceeded far on the road to civilisation; but we had made a start—a secure start, he hoped, this time—and he thought the human race would not again fall back.

Principal Glazebrook, speaking later, said that the estimated cost of a physical laboratory for Liverpool was between 30,000*l*. and 40,000*l*. One generous donor who at present wished to remain unknown had promised 10,000*l*., and that night Sir John Brunner had offered 5000*l*., whilst Mr. Alfred Booth had made a challenge offer of 2500*l*. if three other gentlemen would give the same amount.

The dinner, then, has not been without important results, and we hope that such an admirable precedent will be often followed.

## *AN ANTARCTIC MEETING IN BERLIN.*

EVER since the idea of despatching a German exploring expedition to the Antarctic was first mooted in 1895, the leading scientific men of that country, headed by the veteran champion of Antarctic research, Dr. Neumayr, have been untiring in their efforts to bring the idea to practical realisation, and one by one most of the preliminary difficulties have been overcome. A year ago the project began to take definite shape, and the important question of the choice of a leader was solved by the adoption as such of Dr. Erich von Drygalski, then on the point of completing his lengthened studies on the inland ice of Greenland. During the past twelvemonth meetings have been held in many of the chief cities of Germany, where the proposals put forward by Dr. Drygalski and others have met with an enthusiastic response. The only remaining obstacle to success is the largeness of the sum required for the expedition, which can hardly be raised by private subscriptions, although these have already reached a considerable amount. It has therefore been necessary to look for Government aid in the matter, and the promoters of the enterprise have met with cordial encouragement in official quarters; but, with a view to further arousing the interest of influential circles in the capital, a combined meeting of the Berlin Geographical Society and of the Berlin-Charlottenburg section of the German Colonial Society was held on January 16 last, under the presidency of Baron von Richthofen, for the purpose of putting before the public the reasons for the despatch of an expedition and the plans which have already been formed for its prosecution.

The meeting, at which many distinguished visitors were present by invitation of the two societies, was opened by a short preliminary address from Baron von Richthofen, who sketched the history of the movement, and gave some account of the previous polar work of the chosen leader. Then, after some remarks by Prince von Arenberg, who represented the Colonial Society, Dr. von Drygalski spoke on the scientific, practical and national importance of the proposed expedition. He began by contrasting the broad features of the North and South Polar regions—the former now known to be occupied by a deep sea, the scattered islands in which form but the outposts of the known continents—while, in the South, men's minds have from very early times pictured the existence of a vast polar continent, the glamour of which long exercised a potent attraction on voyagers, and was finally dissipated only by the discoveries of Cook at the end of the last century. Sketching the progress of discovery since that navigator's time, the speaker laid stress on the important influence exerted by the German

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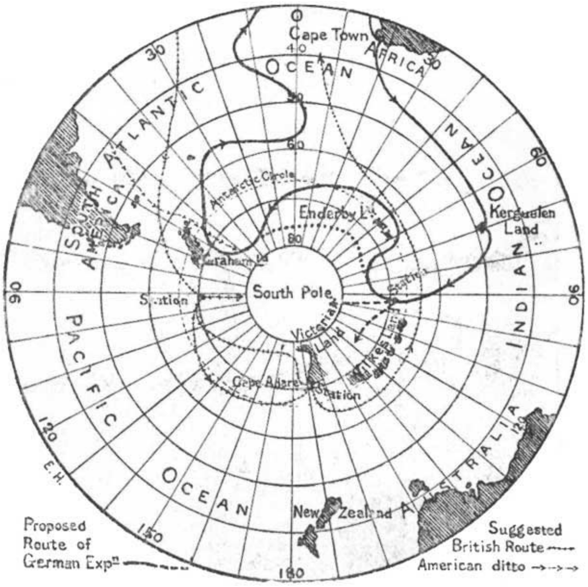
mathematician Gauss, who by his work on terrestrial magnetism gave the impulse to the three expeditions of D'Urville, Wilkes and Ross, to the last of which we owe the whole groundwork of our scientific knowledge of the South Polar region. Although the work of Cook and his successors proved the non-existence of an Antarctic continent valuable from a commercial point of view, it is still the fact that their voyages have—unlike those to the North—brought to light more and more fragments of land, and led to the involuntary conclusion that a continent does lie in those regions.

From a geographical point of view, the fundamental problem attached to the South Polar region—the verification or disproof of the existence of such a continent—is still unsolved. No less important questions likewise await solution with respect to the geological structure and character of the southern lands—so important in connection with a knowledge of volcanic action and the supposed former connection of South America with Australia—and with respect to the conditions of inland ice. It was pointed out by the speaker that even the study of the floating ice broken away from the main mass may lead to important conclusions as to its mode of origin, and the nature of the land from which it comes. Other problems to be investigated are: the origin of the cold ocean currents which take their rise in the south; the conditions of atmospheric pressure and temperature in that region; and the questions relating to terrestrial magnetism, which have so important a bearing on the practice of navigation. Lastly, Dr. von Drygalski alluded, like Sir Clements Markham in this country, to the importance of such an expedition from the point of view of practical training to navigators, and the upholding of national prestige; while he also pointed out the advantages of international co-operation by the sending out of simultaneous expeditions.

The section of Dr. von Drygalski's address which will be read with most interest is, perhaps, that relating to the plans which have already been formed for the carrying out of the enterprise. He began by pointing out that the present seems a particularly favourable period for the resumption of South Polar research, by reason of the unusual amount of drift-ice which has within the last few years broken away from the main mass. This, together with the fact that we are now, according to Supan, passing through a warmer temperature-period, should make the next few years unusually favourable to navigation, and suggests as the most suitable starting-point for an expedition the Southern Indian Ocean, where drift ice has been particularly abundant since 1894. Such a choice also fits in well with the suggestions which have been made with regard to an English expedition, the Southern Pacific and Victoria Land having been mentioned as the probable sphere of the latter. Proceeding southwards on about the meridian of Kerguelen Land, and making *en route* the necessary scientific observations of all kinds, the expedition would attempt to reach some land where a winter station could be formed, and where systematic observations would be continued at the edge of the ice-sheet. In the spring an advance would be attempted southwards over the ice and towards the Magnetic Pole. In the autumn a return would be made as far as possible in a westerly direction along the coast-line supposed to be discovered, the programme being completed within about two years from the date of sailing. The accompanying sketch-map, based on one which accompanies the report of the meeting in the *Verhandlungen* of the Berlin Geographical Society, shows the proposed route in accordance with the above programme. On account of the stormy nature of the southern seas, the lines adopted for the construction of the *Fram* will not be suitable, seaworthiness being the first requisite. Ice-pressure is less to be feared in the south than in the north, since the currents radiate outwards instead of inwards; and the necessary strength can be supplied by internal supports. For many reasons it is thought unnecessary to despatch more than *one* ship, one having proved sufficient for recent North Polar voyages, while the movements of one ship are often hampered by the endeavour to keep in company with a consort. Should the vessels separate for the better prosecution of scientific work, there would be two expeditions, not one, and no additional security would be gained. The vessel should be built of wood, both for its advantages in ice-navigation and to allow of undisturbed magnetic observations. These, with those concerned with meteorology, formed the subject of special remarks by Dr. von Bezold, who pointed out the particular value attaching to such observations in the region in question.



Sketch-map of South Polar Region.

The whole plan of the expedition seems to have been well thought out, and, judging from his previous services to polar research, the scientific work could not be in better hands than those of Dr. von Drygalski. It is to be hoped that the remaining difficulties may speedily be overcome, and that the result may be an important addition, within the next few years, to our scanty knowledge of the southern regions.

## *THE SIKHIM HIMALAYAS.*[1]

OUR ignorance of the Eastern Himalayas is simply astonishing. It is hardly credible that for nearly 1000 miles, from the western extremity of Nepal (long. about 81° E.) to the eastern end of Assam (long. 96° E.) there is only the one small tract of Sikhim, barely fifty miles broad, in which the higher mountains are accessible to Europeans. Throughout Nepal and Bhutan and in the wild forest tracts, inhabited by barbarous Indo-Chinese tribes, east of the latter, none of the rulers of British India can show their faces.

But even in the small mountain region that is open to exploration very few travellers take advantage of the opportunities afforded to them. In the book before us, the author justly insists on the great superiority of the Eastern over the Western Himalayas in scenery. Whether he is right or not in calling the magnificent panorama seen from Senchal, close to Darjeeling, "the

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[1] "Among the Himalayas." By Major L. A. Waddell, LL.D., F.L.S., &c., Indian Army Medical Corps. Pp. xvi + 452. (Westminster: Constable, 1899.)

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